Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

Reallocation of the C Band Satellite Downlink Band at 3.7-4.2GHz	) **DA 19-678**) **GN 18-122**) RM-11791) RM-11778)

Comments of McCarthy Radio Enterprises, Inc.

To the Commision:

1) McCarthy Radio Enterprises, Incorporated ("MRE") and it's principal Michael G. McCarthy, CSRE, CEA hereby respectfully submit it's comments to the Petition for Rulemaking in the above captioned proceeding. The notice seeks comments on consideration of and suggestions for proposed modifications of the rules regarding the reallocation of the present "C Band" satellite downlink band.

2) MRE is a professional contracting technical services provider to the broadcast industry and it's allied fields based in Chicago, IL. MRE's principal has over 30 years in the field of professional broadcast technical services and allied fields. Mssr. McCarthy is certified by the Society of Broadcast Engineers as a Senior Radio Engineer and Audio Engineer and a member of the Institute of Electrical and Electronics Engineers. He has planned, built, and maintains AM and FM facilities in markets of varying sizes from unrated to major. The comments offered herein are those of Mssr. McCarthy and MRE exclusively and do not in any way reflect, represent, express, or infer the opinions, positions, or preferences of his licensee clients or employers in this matter before the Commission.

3) The Commission in the instant matter is proposing to sharply compress, if not eliminate, the present 3.7-4.2GHz downlink band in favor of expanding commercial broadband delivery through use of this spectrum. MRE disagrees with the Commission's expressed opinion that incumbent users can outright share the spectrum and have access to alternate means for

either distribution or reception of content in real and linear time. This would include reception of Emergency Alert System messages which come by satellite to PEP stations as well as other participating stations.

4) The Commission is simply ignoring history of the band's origins and it's challenges when the proposed spectrum band was used for terrestrial point to point (P2P) microwave. While one would think that such a sharing arrangement was mutually beneficial, many downlink owners located under the paths of these links or near a base station undertook extraordinary measures to mask or filter the terrestrial signal from interfering with the much weaker satellite signal. MRE sees history repeating itself with the proposal to share the spectrum with terrestrial broadband users. In fact, the challenges would be most problematic in urbanized areas which would require multiple or densely packed base stations to provide service. Depending on the look angle and elevation of the dish, it is conceivable a receiving dish could look right at a satellite through a broadband base station. Much like sun outages where the sun's energy prevails, the broadband emitter will mask the weaker satellite signal and render impaired reception. Or that multipath from bouncing off taller buildings would reflect back into the dish's boresight. All of which would create maddening loss of service conditions for the incumbent downlink users. Then there is the matter of who will correct interference and when. **Broadcasters losing live direct to air content can not wait in some broadband providers service ticket queue for a technician to be dispatched and then summarily be told, "it's not our problem."**

5) In the instant proceeding, the Commission has suggested broadcasters change over to and rely on the use of "The Internet" for distribution and reception. MRE disagrees strenuously with this proposal. The fact is, the internet is not ready for the demands of broadcasters and others who relay content in linear and real time with an expected up rate of greater than 99.99% . Even 99% is insufficient. Last mile outages are frequent with systemic problems with innumerable causes. Any one of which will cripple a given business operation. Plainly said, the internet, or world-wide-web, is not ready and is simply incapable of replacing the one to infinite distribution provided by C-Band satellite services. More over, the intricate nature of the

internet's routing with it's exposure to overload or denial of service attacks makes this method very fragile. Such is more fragile and less secure in a risk assessment than the single point of failure the satellite provides. History has shown those failures to be exceptionally rare and easily routed around by the provider.

6) While the ability to re-route on the internet is well known and practiced, extreme conditions will limit that flexibility or even make it impossible to sustain service when conditions are least favorable to re-route. Such as in natural disasters when broadcasters ability to relay critical information to local residents is paramount to a given area's recovery. It's been proven time and again, wireline (copper, coax, or fiber) are prone to failure in extreme conditions regardless of whether they're buried or flown. While satellite downlink has it's own exposures to environmental hazards, the risks are tightly compacted to the downlink and nothing more. Making it far more robust than commercial service providers.

7) Additionally, the argument of having two or more service providers for auto-failover is a costly capital and operating burden to be placed on both the distributor and the subscriber. Never mind the fact that a good portion of the country is serviced by only one provider passing by a given location. Thus, many operations (radio, TV and cable) will be placed at a competitive disadvantage to their peers in areas where multiple service providers are available.

8) In so far as emergency messaging and using satellite distribution for Emergency Alert System messaging, it seems that the FCC is two handing the matter where the left (Homeland Security/FEMA) relies on satellite versus the right hand (Broadband) wanting to reallocate the band. Which is it going to be?

9) Finally, cost assessment. For my client licensees, many of whom are located in urban areas where access by heavy equipment is a concern, replacement of dishes will come at significant cost. The cost is further buttressed by some locations being grandfathered zoned for the present dishes and no changes can be made without a formal application to re-zone. All of which places the business at significant risk. Other licensees have local authority having

jurisdiction requirements for formal engineering of foundations and support structure changes. All of this seems to have been left out of the conversation on what the real and true costs will be to move incumbent users where they would need to replace their current dish(es). Not all dishes can be reused.

9) In conclusion, MRE submits this proposal to reallocate the C-Band spectrum to be a poor proposition for broadcasters, cable systems, and any other users of the C-Band satellite distribution system. And unlike the TV repack where displacement funds were statutorily required, displacement costs and funding in this matter are only subjects of discussion and not well defined. MRE encourages the participants with standing to continue working towards a solution which allows C-Band operations to continue, though with maybe less exclusive primary spectrum than presently in use. And to codify specific rules and regulations binding new users on any adjacent band allocation to promptly and forthrightly correct and remedy what will be certain interference issues. Much like done with the 2GHz ENG band.

Respectfully submitted:

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